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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

The Examiner acknowledges, and enters, the amending of claims 1, 29, 28, and 79, as well as the cancellation of claims 2 and 34.

Response to Arguments

Applicant's arguments filed 08/19/2008 have been fully considered but they are not persuasive.

The addition of the limitation that the micro-cavity is planar is not believed to place the claims in condition for allowance. Firstly, the primary reference, McCall was used to teach this feature in the previous Final office action. Stone was not relied upon to teach the shape of the claimed device, only that the Q value is desirable in devices of a similar structure. Therefor this limitation has previously been shown to be found in McCall.

Stone is believed to be relevant prior art as the shape of the device taught is nearly identical to that of McCall. Firstly, both are taught to be micro-cavity whispering gallery mode devices (McCall-title, Stone-col.1 lines 27-29, col.2 line 57). Both teach the device can be asymmetrical or oval (McCall-col.3 lines 40-44, Stone-col.2 lines 47-52). Each teaches the device to have a flattened (planar) disc-like shape (McCall-col.7 example 1, Stone-col.2 lines 42-44 “spheroid with an oblate deformation” meaning flattened at the poles). Additionally, as was cited previously, US 2002/0018611 teaches discs and spheres function essentially interchangeably in whispering gallery mode resonators ([0005]). Therefor, the shape of Stone is believed to be near enough to that of McCall to be a reasonable combination to one of ordinary skill in the art.

As to Stone teaching how to make such a device, the Examiner refers to the arguments posed in the Final office action included below:

The Applicant has argued that the combination of McCall in view of Stone is not proper as a reasonable expectation of success is not established. The Examiner does not agree.

McCall was used in the rejections to teach a high Q micro-resonating device. McCall failed to teach the device to have a Q value of at least 1x10^8. Stone was presented to teach that high Q micro-resonator devices similar to McCall's can be created to have Q values exceeding the claimed value. Stone demonstrates this in the plot shown at fig.5. Motivation was then presented to demonstrate a reason to combine the two teachings.

The Applicant further argues that McCall and Stone fall short of teaching how to make the proposed cavity, leading to the lack of expectation of success. Firstly, the Examiner is of the opinion that establishment of a prima facie case of obviousness does not require the need to disclose "how to make" the device in question (MPEP 2142). According to MPEP 2142, all of the claimed limitations must be taught or suggested. McCall teaches all of the structural features outlined in the device claims. Stone suggests creating the similar micro-resonators with a large Q value.

Finally, and building on the previous argument, the Applicant has stated that the plot of Stone outlines only theoretical possibilities. The Examiner agrees that it is not *clearly stated that Stone has created a device that corresponds to each and every point on the plot. However, Stone teaches that the resonator structure is of a known type ('typical', see brief description of the drawings), and how to modify the structure by changing the deformation amount to obtain a desired Q value for a given application. In the end, Stone may not have created a device at every plot point, but he did outline the use of a typical structure and how to adjust the physical parameters of that structure to obtain the Q values taught. This, in the Examiner's opinion, is a clear teaching of how such a structure can be made (via adjustment of the deformation amount, Stone, col.4 lines 25-36).*

In light of the above arguments the Examiner is of the belief that the rejections made over McCall in view of Stone would be considered both proper and reasonable to one of ordinary skill in the art.

The Examiner notes that the status of the claims remains the same as that in the Final office action. Claims 1-8, 10-22, 28-41, 43-58, 60-62, and 67-82 are pending, and all are rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOD T. VAN ROY whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/TVR/

/Minsun Harvey/
Supervisory Patent Examiner, Art Unit 2828